## ABSTRACT OF THE DISCLOSURE

A control apparatus and method are provided for controlling a torque of an engine coupled to an input shaft of an automatic transmission during a shift by that automatic transmission. In that control, torque-down control by which the engine torque is decreased by a predetermined amount is performed, a torque-restore control starting point at which time torque-restore control is to be started is determined during the torque-down control, and the torque-restore control so as to gradually restore the engine torque to a value before the torque-down control was performed is started at the torque-restore control starting point. The torque-restore control starting point is determined according to a dynamic model which simulates the behavior of the automatic transmission over time from the start of the torque-down control, and so that a rotational speed of the input shaft of the automatic transmission at a target point substantially matches a target speed. A map does not need not to be created to implement this control.